

## RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.

Application Serial Number: 10/569,949  
Source: 1FWP  
Date Processed by STIC: 3/15/07

# ***ENTERED***



IFWP

## RAW SEQUENCE LISTING

DATE: 03/15/2007

PATENT APPLICATION: US/10/569,949

TIME: 11:28:52

Input Set : A:\2007-01-08 0230-0236PUS1.ST25.txt

Output Set: N:\CRF4\03152007\J569949.raw

```

3 <110> APPLICANT: IMANISHI , Takeshi, et al.
5 <120> TITLE OF INVENTION: NOVEL ARTIFICIAL NUCLEIC ACIDS OF N-O BOND CROSSLINKAGE TYPE
7 <130> FILE REFERENCE: 0230-0236PUS1
9 <140> CURRENT APPLICATION NUMBER: US 10/569,949
10 <141> CURRENT FILING DATE: 2006-02-28
12 <150> PRIOR APPLICATION NUMBER: PCT/JP04/12173
13 <151> PRIOR FILING DATE: 2004-08-25
15 <160> NUMBER OF SEQ ID NOS: 34
17 <170> SOFTWARE: PatentIn version 3.3
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 12
21 <212> TYPE: DNA
22 <213> ORGANISM: Artificial Sequence
24 <220> FEATURE:
25 <223> OTHER INFORMATION: Chemically Synthesized Antisense Strand
28 <220> FEATURE:
29 <221> NAME/KEY: misc_feature
30 <222> LOCATION: (6)..(6)
31 <223> OTHER INFORMATION: n is a, c, g, t, unknown, or other
33 <400> SEQUENCE: 1
W--> 34 gcgttntttg ct 12
37 <210> SEQ ID NO: 2
38 <211> LENGTH: 12
39 <212> TYPE: DNA
40 <213> ORGANISM: Artificial Sequence
42 <220> FEATURE:
43 <223> OTHER INFORMATION: Chemically Synthesized Antisense Strand
46 <220> FEATURE:
47 <221> NAME/KEY: misc_feature
48 <222> LOCATION: (6)..(6)
49 <223> OTHER INFORMATION: n is a, c, g, t, unknown, or other
51 <220> FEATURE:
52 <221> NAME/KEY: misc_feature
53 <222> LOCATION: (8)..(8)
54 <223> OTHER INFORMATION: n is a, c, g, t, unknown, or other
56 <400> SEQUENCE: 2
W--> 57 gcgttntntg ct 12
60 <210> SEQ ID NO: 3
61 <211> LENGTH: 12
62 <212> TYPE: DNA
63 <213> ORGANISM: Artificial Sequence
65 <220> FEATURE:
66 <223> OTHER INFORMATION: Chemically Synthesized Antisense Strand

```

## RAW SEQUENCE LISTING

DATE: 03/15/2007

PATENT APPLICATION: US/10/569,949

TIME: 11:28:52

Input Set : A:\2007-01-08 0230-0236PUS1.ST25.txt

Output Set: N:\CRF4\03152007\J569949.raw

```

69 <220> FEATURE:
70 <221> NAME/KEY: misc_feature
71 <222> LOCATION: (4)..(4)
72 <223> OTHER INFORMATION: n is a, c, g, t, unknown, or other
74 <220> FEATURE:
75 <221> NAME/KEY: misc_feature
76 <222> LOCATION: (6)..(6)
77 <223> OTHER INFORMATION: n is a, c, g, t, unknown, or other
79 <220> FEATURE:
80 <221> NAME/KEY: misc_feature
81 <222> LOCATION: (8)..(8)
82 <223> OTHER INFORMATION: n is a, c, g, t, unknown, or other
84 <400> SEQUENCE: 3
W--> 85 gcgntntntg ct 12
88 <210> SEQ ID NO: 4
89 <211> LENGTH: 12
90 <212> TYPE: DNA
91 <213> ORGANISM: Artificial Sequence
93 <220> FEATURE:
94 <223> OTHER INFORMATION: Chemically Synthesized Antisense Strand
97 <220> FEATURE:
98 <221> NAME/KEY: misc_feature
99 <222> LOCATION: (6)..(8)
100 <223> OTHER INFORMATION: n is a, c, g, t, unknown, or other
102 <400> SEQUENCE: 4
W--> 103 gcgttnntg ct 12
106 <210> SEQ ID NO: 5
107 <211> LENGTH: 12
108 <212> TYPE: DNA
109 <213> ORGANISM: Artificial Sequence
111 <220> FEATURE:
112 <223> OTHER INFORMATION: Chemically Synthesized Antisense Strand
115 <220> FEATURE:
116 <221> NAME/KEY: misc_feature
117 <222> LOCATION: (4)..(9)
118 <223> OTHER INFORMATION: n isa, c, g, t, unknown, or other
120 <400> SEQUENCE: 5
W--> 121 gcgnnnnnng ct 12
124 <210> SEQ ID NO: 6
125 <211> LENGTH: 15
126 <212> TYPE: DNA
127 <213> ORGANISM: Artificial Sequence
129 <220> FEATURE:
130 <223> OTHER INFORMATION: Chemically Synthesized Antisense Strand
133 <220> FEATURE:
134 <221> NAME/KEY: misc_feature
135 <222> LOCATION: (6)..(6)
136 <223> OTHER INFORMATION: n is a, c, g, t, unknown, or other
138 <220> FEATURE:

```

## RAW SEQUENCE LISTING

DATE: 03/15/2007

PATENT APPLICATION: US/10/569,949

TIME: 11:28:52

Input Set : A:\2007-01-08 0230-0236PUS1.ST25.txt

Output Set: N:\CRF4\03152007\J569949.raw

```

139 <221> NAME/KEY: misc_feature
140 <222> LOCATION: (8)..(8)
141 <223> OTHER INFORMATION: n is a, c, g, t, unknown, or other
143 <220> FEATURE:
144 <221> NAME/KEY: misc_feature
145 <222> LOCATION: (10)..(10)
146 <223> OTHER INFORMATION: n is a, c, g, t, unknown, or other
148 <220> FEATURE:
149 <221> NAME/KEY: misc_feature
150 <222> LOCATION: (12)..(12)
151 <223> OTHER INFORMATION: n is a, c, g, t, unknown, or other
153 <220> FEATURE:
154 <221> NAME/KEY: misc_feature
155 <222> LOCATION: (14)..(14)
156 <223> OTHER INFORMATION: n is a, c, g, t, unknown, or other
158 <400> SEQUENCE: 6
W--> 159 ttttntntn tntnt 15
162 <210> SEQ ID NO: 7
163 <211> LENGTH: 15
164 <212> TYPE: DNA
165 <213> ORGANISM: Artificial Sequence
167 <220> FEATURE:
168 <223> OTHER INFORMATION: Chemically Synthesized Antisense Strand
171 <220> FEATURE:
172 <221> NAME/KEY: misc_feature
173 <222> LOCATION: (5)..(6)
174 <223> OTHER INFORMATION: n is a, c, g, t, unknown, or other
176 <220> FEATURE:
177 <221> NAME/KEY: misc_feature
178 <222> LOCATION: (8)..(8)
179 <223> OTHER INFORMATION: n is a, c, g, t, unknown, or other
181 <220> FEATURE:
182 <221> NAME/KEY: misc_feature
183 <222> LOCATION: (10)..(12)
184 <223> OTHER INFORMATION: n is a, c, g, t, unknown, or other
186 <220> FEATURE:
187 <221> NAME/KEY: misc_feature
188 <222> LOCATION: (14)..(14)
189 <223> OTHER INFORMATION: n is a, c, g, t, unknown, or other
191 <400> SEQUENCE: 7
W--> 192 ttttntntn nntnt 15
195 <210> SEQ ID NO: 8
196 <211> LENGTH: 15
197 <212> TYPE: DNA
198 <213> ORGANISM: Artificial Sequence
200 <220> FEATURE:
201 <223> OTHER INFORMATION: Chemically Synthesized Antisense Strand
204 <220> FEATURE:
205 <221> NAME/KEY: misc_feature

```

## RAW SEQUENCE LISTING

DATE: 03/15/2007

PATENT APPLICATION: US/10/569,949

TIME: 11:28:52

Input Set : A:\2007-01-08 0230-0236PUS1.ST25.txt

Output Set: N:\CRF4\03152007\J569949.raw

```

206 <222> LOCATION: (6)..(10)
207 <223> OTHER INFORMATION: n is a, c, g, t, unknown, or other
209 <220> FEATURE:
210 <221> NAME/KEY: misc_feature
211 <222> LOCATION: (12)..(12)
212 <223> OTHER INFORMATION: n is a, c, g, t, unknown, or other
214 <220> FEATURE:
215 <221> NAME/KEY: misc_feature
216 <222> LOCATION: (14)..(14)
217 <223> OTHER INFORMATION: n is a, c, g, t, unknown, or other
219 <400> SEQUENCE: 8
W--> 220 tttttnnnnn tntnt 15
223 <210> SEQ ID NO: 9
224 <211> LENGTH: 15
225 <212> TYPE: DNA
226 <213> ORGANISM: Artificial Sequence
228 <220> FEATURE:
229 <223> OTHER INFORMATION: Chemically Synthesized Antisense Strand
232 <220> FEATURE:
233 <221> NAME/KEY: misc_feature
234 <222> LOCATION: (1)..(1)
235 <223> OTHER INFORMATION: n is a, c, g, t, unknown, or other
237 <220> FEATURE:
238 <221> NAME/KEY: misc_feature
239 <222> LOCATION: (3)..(3)
240 <223> OTHER INFORMATION: n is a, c, g, t, unknown, or other
242 <220> FEATURE:
243 <221> NAME/KEY: misc_feature
244 <222> LOCATION: (5)..(7)
245 <223> OTHER INFORMATION: n is a, c, g, t, unknown, or other
247 <220> FEATURE:
248 <221> NAME/KEY: misc_feature
249 <222> LOCATION: (9)..(14)
250 <223> OTHER INFORMATION: n is a, c, g, t, unknown, or other
252 <400> SEQUENCE: 9
W--> 253 ntntnnntnn nnnnt 15
256 <210> SEQ ID NO: 10
257 <211> LENGTH: 15
258 <212> TYPE: DNA
259 <213> ORGANISM: Artificial Sequence
261 <220> FEATURE:
262 <223> OTHER INFORMATION: Chemically Synthesized Antisense Strand
265 <220> FEATURE:
266 <221> NAME/KEY: misc_feature
267 <222> LOCATION: (2)..(2)
268 <223> OTHER INFORMATION: n is a, c, g, t, unknown, or other
270 <220> FEATURE:
271 <221> NAME/KEY: misc_feature
272 <222> LOCATION: (5)..(6)

```

## RAW SEQUENCE LISTING

DATE: 03/15/2007

PATENT APPLICATION: US/10/569,949

TIME: 11:28:52

Input Set : A:\2007-01-08 0230-0236PUS1.ST25.txt

Output Set: N:\CRF4\03152007\J569949.raw

```

273 <223> OTHER INFORMATION: n is a, c, g, t, unknown, or other
275 <220> FEATURE:
276 <221> NAME/KEY: misc_feature
277 <222> LOCATION: (8)..(8)
278 <223> OTHER INFORMATION: n is a, c, g, t, unknown, or other
280 <220> FEATURE:
281 <221> NAME/KEY: misc_feature
282 <222> LOCATION: (10)..(12)
283 <223> OTHER INFORMATION: n is a, c, g, t, unknown, or other
285 <220> FEATURE:
286 <221> NAME/KEY: misc_feature
287 <222> LOCATION: (14)..(14)
288 <223> OTHER INFORMATION: n is a, c, g, t, unknown, or other
290 <400> SEQUENCE: 10
W--> 291 tnttnntntn nntnt 15
294 <210> SEQ ID NO: 11
295 <211> LENGTH: 15
296 <212> TYPE: DNA
297 <213> ORGANISM: Artificial Sequence
299 <220> FEATURE:
300 <223> OTHER INFORMATION: Chemically Synthesized Antisense Strand
303 <220> FEATURE:
304 <221> NAME/KEY: misc_feature
305 <222> LOCATION: (1)..(1)
306 <223> OTHER INFORMATION: n is a, c, g, t, unknown, or other
308 <220> FEATURE:
309 <221> NAME/KEY: misc_feature
310 <222> LOCATION: (5)..(6)
311 <223> OTHER INFORMATION: n is a, c, g, t, unknown, or other
313 <220> FEATURE:
314 <221> NAME/KEY: misc_feature
315 <222> LOCATION: (9)..(10)
316 <223> OTHER INFORMATION: n is a, c, g, t, unknown, or other
318 <220> FEATURE:
319 <221> NAME/KEY: misc_feature
320 <222> LOCATION: (12)..(14)
321 <223> OTHER INFORMATION: n is a, c, g, t, unknown, or other
323 <400> SEQUENCE: 11
W--> 324 ntttnnttnn tnnnt 15
327 <210> SEQ ID NO: 12
328 <211> LENGTH: 10
329 <212> TYPE: DNA
330 <213> ORGANISM: Artificial Sequence
332 <220> FEATURE:
333 <223> OTHER INFORMATION: Chemically Synthesized Antisense Strand
336 <220> FEATURE:
337 <221> NAME/KEY: misc_feature
338 <222> LOCATION: (9)..(9)
339 <223> OTHER INFORMATION: n is a, c, g, t, unknown, or other

```

RAW SEQUENCE LISTING ERROR SUMMARY  
 PATENT APPLICATION: US/10/569,949

DATE: 03/15/2007  
 TIME: 11:28:53

Input Set : A:\2007-01-08 0230-0236PUS1.ST25.txt  
 Output Set: N:\CRF4\03152007\J569949.raw

fyI

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. ~~6~~  
 Seq#:2; N Pos. ~~6, 8~~  
 Seq#:3; N Pos. ~~4, 6, 8~~  
 Seq#:4; N Pos. ~~6, 7, 8~~  
 Seq#:5; N Pos. ~~4, 5, 6, 7, 8, 9~~  
 Seq#:6; N Pos. ~~6, 8, 10, 12, 14~~  
 Seq#:7; N Pos. ~~5, 6, 8, 10, 11, 12, 14~~  
 Seq#:8; N Pos. ~~6, 7, 8, 9, 10, 12, 14~~  
 Seq#:9; N Pos. ~~1, 3, 5, 6, 7, 9, 10, 11, 12, 13, 14~~  
 Seq#:10; N Pos. ~~2, 5, 6, 8, 10, 11, 12, 14~~  
 Seq#:11; N Pos. ~~1, 5, 6, 9, 10, 12, 13, 14~~  
 Seq#:12; N Pos. ~~9~~  
 Seq#:13; N Pos. 6  
 Seq#:14; N Pos. 6, 8  
 Seq#:15; N Pos. 4, 6, 8  
 Seq#:16; N Pos. 6, 7, 8  
 Seq#:17; N Pos. 4, 5, 6, 7, 8, 9  
 Seq#:18; N Pos. 6, 8, 10, 12, 14  
 Seq#:19; N Pos. 5, 6, 8, 10, 11, 12, 14  
 Seq#:20; N Pos. 6, 7, 8, 9, 10, 12, 14  
 Seq#:21; N Pos. 1, 3, 5, 6, 7, 9, 10, 11, 12, 13, 14  
 Seq#:22; N Pos. 9  
 Seq#:28; N Pos. 6, 10, 12, 14  
 Seq#:31; N Pos. 6, 8, 10, 12, 14  
 Seq#:32; N Pos. 11  
 Seq#:33; N Pos. 11  
 Seq#:34; N Pos. 9

## VERIFICATION SUMMARY

DATE: 03/15/2007

PATENT APPLICATION: US/10/569,949

TIME: 11:28:53

Input Set : A:\2007-01-08 0230-0236PUS1.ST25.txt

Output Set: N:\CRF4\03152007\J569949.raw

L:34 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0  
L:57 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0  
L:85 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0  
L:103 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0  
L:121 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0  
L:159 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0  
L:192 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0  
L:220 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0  
L:253 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0  
L:291 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0  
L:324 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0  
L:342 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0  
L:360 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0  
L:383 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0  
L:411 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0  
L:429 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0  
L:447 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0  
L:485 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0  
L:518 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0  
L:546 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0  
L:579 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0  
L:597 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:0  
L:690 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0  
L:752 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:0  
L:770 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:0  
L:788 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:0  
L:806 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:0